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March 15, 2006

The Honorable Charles Terreni  
Chief Clerk and Administrator  
South Carolina Public Service Commission  
Post Office Box 11649  
Columbia, South Carolina 29211

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SC PUBLIC SERVICE  
COMMISSION

Re: Application of Chem-Nuclear Systems, LLC (SCPSC Docket No. 2000-366-A)  
(Fiscal Year 2005-2006 Proceeding)

Dear Mr. Terreni:

Enclosed herewith for filing with the Commission, please find twenty-five (25) copies of the prefiled Direct Testimony of Regan E. Voit and of James W. Latham on behalf of Chem-Nuclear Systems, LLC, a Division of Duratek, Inc., which testimony is filed pursuant to the Commission's notice dated December 20, 2005 in the above-captioned docket.

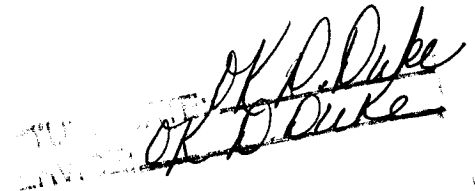
Should you have any questions with respect to this testimony, please do not hesitate to contact me.

Very truly yours,

  
Robert T. Bockman

Enclosures

cc: Mr. Dan F. Arnett (w/encl.)  
The Honorable Frank Fusco (w/encl.)  
The Honorable C. Earl Hunter, (w/encl.)  
The Honorable Max K. Batavia (w/encl.)  
The Honorable Henry D. McMaster (w/encl.)  
Hana Pokorna-Williamson, Esquire (w/encl.)  
Benjamin P. Mustian, Esquire (w/encl.)



BEFORE THE PUBLIC SERVICE COMMISSION  
OF SOUTH CAROLINA

Docket No. 2000-366-A

IN RE: Application of Chem-Nuclear Systems, )  
LLC, a Division of Duratek, Inc., for )  
Adjustment in the Levels of Allowable )  
Costs and for Identification of Allowable )  
Costs )  
\_\_\_\_\_ )

**CERTIFICATE  
OF SERVICE**

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I, ElizaBeth A. Blitch, do hereby certify that I have this date served one (1) copy of the Prefiled Direct Testimony of Regan E. Voit and of James W. Latham upon the following parties of record by causing said copies to be deposited with the United States Mail, first class postage prepaid and addressed as follows:

Hana Pokorna-Williamson, Esquire  
Acting Consumer Advocate  
State of South Carolina  
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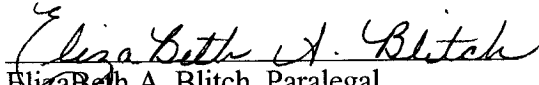
The Honorable Henry Dargan McMaster  
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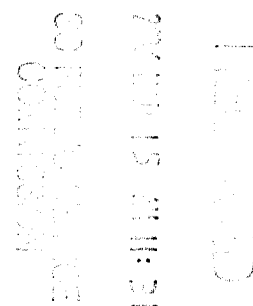
  
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March 15, 2006

Columbia, South Carolina

BEFORE  
THE PUBLIC SERVICE COMMISSION  
OF  
SOUTH CAROLINA

Docket No. 2000-366-A  
( Year 2005-2006 Proceeding )



DIRECT TESTIMONY

OF

**REGAN E. VOIT**

FOR

CHEM-NUCLEAR SYSTEMS, LLC,  
A DIVISION OF DURATEK, INC.

**Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.**

**A.** My name is Regan E. Voit. My business address is 140 Stoneridge Drive, Columbia, South Carolina. I am employed by Chem-Nuclear Systems, LLC (“Chem-Nuclear”) and serve as its President.

**Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.**

**A.** I graduated from the University of Virginia with a degree in aerospace engineering and received my MBA from the University of South Carolina. From 1972 to 1976, I served as a United States Naval officer on nuclear submarines. From 1976 to 1980, I worked for the United States Department of Energy at the Savannah River site. My responsibilities

there were regulatory oversight of the reactor operations conducted at that facility. These first eight years of my nuclear industry career provided experience about radioactive waste issues from a waste generator's point of view. The next 26 years of my career have been in the radioactive waste management industry.

**Q. PLEASE DESCRIBE YOUR GENERAL DUTIES AND RESPONSIBILITIES.**

**A.** From 1980 to 1982, I was employed as a project manager for radioactive decontamination services by Chem-Nuclear. I was responsible for developing and implementing personnel training and technician certification programs for field operations, and establishing detailed operational procedures to refine decontamination services. From 1982 to 1986, I worked as director of waste management services for a new company named NUS Process Services Corporation. There, I established administrative and quality assurance policies. From 1986 to 1989, I worked as vice president of operations for LN Technologies, a provider of services for chemical decontamination and chemical cleaning of radioactive systems, radioactive waste processing, and radioactive waste transportation. In 1990, I returned to Chem-Nuclear as director of projects with responsibility for the financial and technical performance of the major site remediation and decontamination/decommissioning projects performed for the federal government. In 1991, I took responsibility for the financial and technical performance of Chem-Nuclear's field services, where our technicians process, package and transport waste for disposal. In 1993, the financial and technical performance of Chem-Nuclear's radioactive and hazardous waste processing facility in Kingston,

Tennessee, was added to my field services responsibilities. In 1995, I was promoted to President of Chem-Nuclear.

I have been an active participant in many professional activities and associations over the years, including the American Nuclear Society, the Nuclear Energy Institute, and the Waste Management Conference Program Advisory Committee. I have served on the South Carolina Chamber of Commerce Board of Directors, on the Executive Committee for Excellence in Education, and as chairman of the Executive Advisory Committee for the South Carolina Quality Forum. I have also served as a business community representative at the request of our State Superintendent of Education on five advisory committees: the School Accreditation Advisory Committee, the Teacher Education Performance-Based Standards Committee, the 2000 Vision Steering Committee, the Governor's Workforce Education Interim Planning Committee, and a sub-committee of Governor Sanford's 2003 Management, Accountability and Productivity Commission. I was recently appointed by Governor Sanford to serve on the Education and Economic Development Council.

**Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE COMMISSION?**

**A.** Yes. I have testified on behalf of Chem-Nuclear in each of the Company's proceedings before the South Carolina Public Service Commission ("Commission") in this docket.

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

**A.** I will provide a brief background on the general process we have used in this proceeding for identifying the allowable costs associated with our low-level radioactive waste

(LLRW) disposal business. I will introduce three (3) new exhibits that reflect adjustments to our Application. We changed our exhibits for minor editing and to incorporate the results of the annual audit conducted by the Office of Regulatory Staff (ORS) in 2005. These new exhibits document the adjustments recommended by the ORS after its audit. I will also outline our method of presenting our testimony in this proceeding.

**Q. PLEASE DESCRIBE BRIEFLY THE STATUTORY AND REGULATORY BACKGROUND FOR CHEM-NUCLEAR'S APPLICATION THAT IS THE SUBJECT OF THIS HEARING.**

- A. This is the sixth hearing conducted by the Commission in this docket to fulfill its responsibilities under the Atlantic Interstate Low-Level Radioactive Waste Compact Implementation Act of 2000 (the "Act"). As required by the Act, the Commission has held formal proceedings annually and published orders after hearings in this docket by which the Commission has identified Chem-Nuclear's "allowable costs." By that determination as provided by the Act, Chem-Nuclear is able to recover the costs that it incurs for its operations in the disposal of low-level radioactive waste at its Barnwell site.

Over the previous five (5) hearings, and as the Commission's orders demonstrate, the Commission has relied on the evidence to make numerous determinations with respect to which of our costs are to be properly considered as "allowable," and the Commission has consistently refined its decisions on the issues. As a consequence, many of the issues that the parties and the Commission addressed in previous proceedings have

been resolved and the orders represent the precedents upon which we have relied in preparing our Application and evidence in this case.

**Q. PLEASE EXPLAIN THE GENERAL CONCEPT THAT CHEM-NUCLEAR'S APPLICATION AND EVIDENCE EMBODY IN THIS PROCEEDING.**

**A.** Our Application and our evidence in this case represent the same approach that was used in last year's case. That approach incorporates fully the separation of costs into the three (3) categories that were identified in the Collaborative Review of Chem-Nuclear's Operations and Efficiency Plan that the Commission approved and which the Commission has directed Chem-Nuclear to use by previous orders in this Docket. Those categories are fixed costs, variable costs and irregular costs. Moreover, our Application and evidence also reflect the full use of the accounting system that the Commission approved. The system enables us to capture and track the separated costs as we incur them and incorporate the data effectively in our internal monthly reports and in our exhibits to the Application and our evidence.

The actual data collected in the three cost categories for Fiscal Year 2004-2005 provides information to adjust the projected costs that the Commission identified as allowable in Order No. 2005-338(A) to reflect actual operations experience. Our testimony will identify the areas where we are seeking adjustments for Fiscal Year 2004-2005.

**Q. WOULD YOU PLEASE COMMENT ON THE THREE NEW EXHIBITS YOU ARE PRESENTING AS PART OF YOUR TESTIMONY?**

**A.** Yes. Exhibit A (revised 01/26/06) replaces Exhibit A from our Application. Exhibit B (revised 01/26/06) replaces Exhibit B from our Application. Exhibit C (revised 01/26/06) replaces Exhibit C from our Application. The three (3) new exhibits, incorporated in my testimony as REV-1, illustrate the categories of costs as Fixed Costs, Variable Costs, and Irregular Costs.

**Q. WOULD YOU PLEASE DESCRIBE HOW CHEM-NUCLEAR WILL PRESENT ITS OTHER TESTIMONY IN THIS HEARING?**

**A.** Yes. Jim Latham, our Vice President for Barnwell Operations, will present testimony about the adjustments to Order No. 2005-338(A) we are asking the Commission to identify as allowable. Specifically, Jim will discuss in more detail adjustments identified in our revised Exhibits A, B, and C.

**Q. DOES THAT CONCLUDE YOUR TESTIMONY?**

**A.** Yes.



**EXHIBIT A (revised 1/26/06)**

**FISCAL YEAR 2004-2005 COSTS**

**Fixed Costs: Adjustment Proposed**

Fixed Costs, subject to a 29% operating margin, were incurred in Fiscal Year 2004-2005 in the general categories of labor-related costs, non-labor costs, costs allocated from corporate functions, equipment leases and support, depreciation and insurance. Fixed Costs, **not** subject to a 29% operating margin, were incurred in Fiscal Year 2004-2005 in the general categories of employee retention compensation, legal (license appeal) and intangible asset amortization. The following table compares the actual costs incurred to the costs identified as allowable in Order No. 2005-338(A):

	<b>Commission Order No. 2005-338(A)</b>	<b>Actual Costs Incurred in FY 2004-2005</b>	<b>Adjustment Proposed</b>
Labor and Fringe	\$2,854,670	\$2,898,573	
Non-Labor	\$1,193,327	\$1,282,515	
Corporate Allocation (G&A)*	\$923,790	\$1,187,072	
Equipment leases and support	\$238,475	\$373,092	
Depreciation	\$110,000	\$97,211	
Insurance	\$962,120	\$798,300	
Subtotal (Fixed Cost subject to 29% margin)	\$6,282,382	\$6,636,763	
Employee retention compensation	\$91,641	\$101,858	
Legal (license appeal)	\$250,000	\$422,043	
Intangible asset amortization	\$625,000	\$625,000	
Subtotal (Fixed Cost <b>not</b> subject to 29% margin)	\$966,641	\$1,148,901	
<b>Total Fixed Costs</b>	<b>\$7,249,023</b>	<b>\$7,785,664</b>	<b>\$536,641</b>

\*The actual cost amount is calculated based on the method of G&A allocation used in prior Fiscal Years as explained further on the next page of this Exhibit.

For further explanation of the proposed adjustment of \$536,641, see next page.

## **Explanation for Proposed Adjustments to Fixed Costs**

### **Equipment Leases and Support**

**\$134,617**

Costs incurred in the Fixed Cost category of Equipment Leases and Support in Fiscal Year 2004-2005 were \$134,617 more than the amount anticipated by Order 2005-338(A). The following factors were the primary contributors to these increased costs:

1. A D-6 bulldozer was rented for a period of about three months while the company-owned bulldozer was being repaired. Costs for this rental bulldozer were \$27,722.
2. The Company extended the lease on a motor grader for an additional 24 months, starting in December 2004, at a lower rate than the original lease. This lower rate resulted in a cost savings of \$1,842.02 per month offsetting the higher lease costs by a total of \$12,894 in Fiscal Year 2004-2005.
3. The Company entered into a 24-month lease of a 175-ton crawler crane starting in November 2004. The crawler crane allows proper waste handling and safe positioning of the crane on top of vaults covered with backfill at Trench 94. Offload of waste packages from transportation casks and movement of those packages into a disposal vault at Trench 94 requires the offload crane to be positioned on top of newly-placed backfill surrounding and covering filled vaults. The configuration of Trench 94 allows efficient use of available land area in that part of the disposal site. The wide spacing and overall length of the tracks on the crawler crane spread the load of the crane and the waste package over a large area of backfill reducing the soil loading to an acceptable level. Similar operations with a 140-ton lattice boom mobile crane would require placement of large steel plates under the outrigger pads to spread the weight of the crane and waste packages. Placement of the steel plates and outrigger pads on the backfill in a manner that avoids the space created between four adjacent cylindrical disposal vaults would require extra work to locate each vault by land survey and to position the equipment. The lease cost for this crawler crane is \$3,710 per month more than the lease cost for a 140-ton lattice-boom crane resulting in \$29,680 additional lease costs in Fiscal Year 2004-2005.
4. A 140-ton lattice-boom crane was leased for the first half of Fiscal Year 2004-2005 at a rate of \$9,540 per month. While the 175-ton crawler crane was being set up and operator training completed, leases on the two rental cranes overlapped. This overlap in leases resulted in \$19,080 higher leased equipment costs.
5. During the previous Fiscal Year, the Company's 40-ton hydraulic crane was found to be beyond economic repair and it was retired. Fiscal Year 2004-2005 costs to lease a 40-ton hydraulic crane were \$74,200.

**Corporate Allocation (Management Fee/G&A)                      \$263,282**

The calculated G&A allocation for Fiscal Year 2004-2005 was \$263,282 more than the amount anticipated in Order No. 2005-338(A). One component of the Fixed Costs for operating the Barnwell disposal site is the Corporate G&A that is allocated to Chem-Nuclear from its parent company, Duratek, Inc. Corporate G&A allocation is difficult to project because of the many variables that are considered each year to determine the actual amount of Corporate G&A allocation. Duratek allocates Corporate G&A using the total cost method.

The method for determining the allowable Corporate G&A allocation for Chem-Nuclear was previously recommended by the Commission Staff and then approved by the Commission for Fiscal Year 2002-2003 in Order No. 2004-439. That method was used again to determine the allowable Corporate G&A for which Chem-Nuclear requested to be identified as an allowable cost for Fiscal Year 2003-2004. The ORS accepted that method and the Commission identified the amount of Corporate G&A allocation calculated using that method as allowable in Order No. 2005-338(A). In Fiscal Year 2004-2005, the same method was used to calculate the allowable portion of Corporate G&A allocation specified in Exhibit A (Fixed Costs) of the Chem-Nuclear application. The method consists of several steps, which are summarized here.

- Each month, Duratek, Inc. allocates the Corporate G&A expense to each of its operating groups based on total cost incurred by each operating group. For Chem-Nuclear, a percentage of that actual Corporate G&A expense is booked as unallowable. The percentage of unallowable G&A costs is estimated at the beginning of each Fiscal Year based on the anticipated Corporate G&A budget for the company. For Fiscal Year 2004-2005, the percentage used was 6.5% of the Chem-Nuclear allocation from the Corporate G&A. The Corporate G&A is recorded in the Chem-Nuclear general ledger under an allowable and unallowable project number in accordance with this estimated split. The Chem-Nuclear portion of the Columbia, South Carolina, office G&A expense is also recorded on the Chem-Nuclear general ledger under the allowable G&A project number.
- In preparing our Application, the Commission-approved method was used to calculate the portion of the total allocated Corporate G&A expense that Chem-Nuclear can apply for as an allowable cost. The calculation consists of four additional steps.
  - Step 1 calculates the ratio of actual unallowable Barnwell operating costs incurred compared to the total costs for the year. These numbers are taken from the general ledger of Chem-Nuclear. For Fiscal Year 2004-2005, these numbers are \$646,122 and \$13,631,432, respectively, and yield a ratio of 4.74%.

- Step 2 calculates the total actual fiscal year G&A expense charged to Chem-Nuclear. This number consists of the following information from the Chem-Nuclear general ledger:
  - Total allowable and unallowable Duratek, Inc., Corporate G&A allocation
  - Duratek, Inc. Information Systems allocation
  - Columbia, SC, G&A allocation.

For Fiscal Year 2004-2005, that amount is \$1,246,138.

- Step 3 applies the 4.74% calculated in Step 1 to the actual fiscal year G&A expense of Chem-Nuclear calculated in Step 2. Applying the 4.74% yields an unallowable portion of the total Chem-Nuclear G&A of \$59,066.
- Step 4 calculates the allowable portion of the Chem-Nuclear G&A expense by subtracting the unallowable portion calculated in step three from the total Chem-Nuclear G&A expense calculated in step two. That difference is \$1,187,072.

Chem-Nuclear is requesting the Commission identify \$1,187,072 as the allowable cost for Chem-Nuclear G&A expense for Fiscal Year 2004-2005. This amount is \$263,282 over the amount projected in Order No. 2005-338(A) and represents one component of the increased Fixed Costs that the company is requesting the Commission identify as an allowable cost for Fiscal Year 2004-2005.

**Legal Support (license appeal)**

**\$172,043**

The South Carolina Department of Health and Environmental Control (DHEC) issued the renewal amendment to SC Radioactive Material License No. 097 for the Barnwell Low-Level Radioactive Waste Disposal Facility in February of 2004. In March 2004, the Sierra Club and Environmentalists, Inc., filed a Petition for Administrative Review of the license renewal in which DHEC and Chem-Nuclear were named as Respondents. An adjudicatory hearing was held before Administrative Law Judge John D. Geathers on February 16, 17, 18 and 22, 2004.

Chem-Nuclear is requesting the Commission identify \$422,043 as the allowable cost for the legal support for the license appeal for Fiscal Year 2004-2005. This amount is \$172,043 over the \$250,000 amount projected in Order No. 2005-338(A) and represents another component of the increased Fixed Costs the Company is requesting the Commission identify as an allowable cost for Fiscal Year 2004-2005.

When the Application for identification of allowable costs was filed in September of 2004, only a portion of the costs associated with the license appeal were known or could have been estimated. There was no way to know the number of depositions that would be taken, the number of interrogatories that would be submitted by Petitioners, the extensive

document production requests submitted by Petitioners (which involved negotiations over confidentiality of certain proprietary documents), the motions that would need to be filed or responded to, and the length of the hearing, which lasted a full four (4) days.

### **Summary of Fixed Cost Adjustments**

The total of the Fixed Cost adjustments discussed above equals \$569,942. However, Chem-Nuclear is requesting the Commission to identify as allowable an adjustment of \$536,641, which is the difference between the actual total fixed costs of \$7,785,664 for Fiscal Year 2004-2005 and the amount of \$7,249,023 identified as allowable total Fixed Costs in Order No. 2005-338(A). With the adjustment of \$536,641, allowable Fixed Costs for Fiscal Year 2004-2005 would total \$7,785,664.

**Variable Costs: Adjustments Proposed**

**Variable Labor and Non-Labor Costs**

Order No. 2005-338(A) identified the following categories of rates for projecting Variable Labor and Non-Labor costs: vault purchase and inspection (per vault), ABC waste disposal (per shipment), slit trench operations (per slit trench offload), customer assistance (per shipment), and trench records (per container).

The following table illustrates the Variable Labor and Non-Labor costs that would be calculated using the Variable Labor and Non-Labor rates identified in Order No. 2005-338(A) and the number of units in each category.

	<b>Units</b>	<b>Variable Cost Rate in Order No. 2005-338(A)</b>	<b>Calculated Cost</b>
Vault Purchase & Inspection (per vault)	346	\$74	\$25,604
ABC Waste Disposal (per shipment)(total shipments, less slit trench shipments, less irregular project shipments)	334	\$1,377	\$459,918
Slit Trench Operations (per slit trench offload)	23	\$6,168	\$141,864
Customer Assistance (per shipment)	362	\$233	\$84,346
Trench records (per container)	773	\$38	\$29,374
<b>Total Projected Variable Labor and Non-labor Cost</b>			<b>\$741,106</b>

The actual Variable Labor and Non-Labor costs experienced in the disposal of waste in Fiscal Year 2004-2005 resulted in a Total Variable Labor and Non-Labor Cost of \$771,771. Therefore, Chem-Nuclear requests the Commission identify the amount of \$771,771 as the allowable costs for this category of costs. This amount is \$30,665 more than the amount calculated using the rates identified in Order No. 2005-338(A).

The primary factor in these increased variable costs was changes in the required handling equipment for slit trench offloads. As approved by DHEC, the introduction of redundant outhaul cables (use of a Kevlar loop in conjunction with the normal ¾-inch wire rope sling) resulted in increased costs for each offload of about \$1,100.

### Vault Costs

The following table illustrates the vault costs that would be calculated using the Variable Cost rates identified in Order No. 2005-338(A) and the volumes of waste received in each respective category.

	<b>Volume Buried (cubic feet)</b>	<b>Variable Cost Rate in Order No. 2005-338(A)</b>	<b>Calculated Cost</b>
Class A waste	20,810.99	\$31.23	\$649,927.22
Class B waste	12,029.76	\$31.41	\$377,854.76
Class C waste	7,589.02	\$31.33	\$237,764.00
Slit Trench waste	1,323.70	\$115.93	\$153,456.54
Irregular Components (in vaults as an irregular cost)	1,506.99	N/A	N/A
<b>Total Vault Cost</b>			<b>\$1,419,002.52</b>
<b>Total Volume</b>	<b>43,260.46</b>		

Eleven vaults (9 custom vaults and 2 slit trench vaults) were used to dispose of irregular components. Costs for these eleven vaults are included in the Irregular Costs.

Twelve cylindrical vaults were used in the construction of Trench 97. Costs for these twelve cylindrical vaults are included in Irregular Costs for trench construction. When these vaults are used for disposal of waste, the Trench 97 irregular project will be credited and the vault cost expensed under variable vault costs.

The total cost incurred for routine disposal vaults used during Fiscal Year 2004-2005 was \$1,489,909.50. We request the Commission identify \$1,489,909.50 as the allowable cost for vaults for Fiscal Year 2004-2005. This amount is \$70,906.98 more than the amount calculated using the rates identified in Order No. 2005-338(A).

### Irregular Costs

The following table summarizes the Irregular Costs incurred in Fiscal Year 2004-2005 organized by projects. Exhibit B (revised 01/26/06) provides additional descriptions of each of these irregular projects. The total costs incurred in Fiscal Year 2004-2005, as Irregular Costs, were \$803,696.72 compared to the amount identified in Order No. 2005-338(A) of \$230,000.00. We therefore request an adjustment of \$573,696.72 increase in Irregular Costs.

<b>Irregular Cost Item</b>	<b>Basis For Order Amount</b>	<b>Actual FY 04-05 Labor</b>	<b>Actual FY 04-05 Non-Labor</b>	<b>Total Cost FY 04-05</b>
Irregular Components: 4 shipments of CY Piping and valves, 1 shipment of Navy Refueling equipment	\$70,000.00	\$12,551.99	\$107,022.27	\$119,574.26
Various Trenches (design, construct, backfill including free flowing sand): Trench 96, Trench 86, Trench 94, Trench 95, Trench 97, Slit Trench 22, Slit Trench 23, Slit Trench 24, Slit Trench 25, Slit Trench 26, Slit Trench 27, Slit Trench 28	\$160,000.00	\$52,159.78	\$263,044.04	\$315,203.82
Decontamination and Corrective Actions		\$3,473.45	\$11,292.76	\$14,766.21
Engineering Drawings		\$60,260.25	\$23,665.80	\$83,926.05
Miscellaneous Irregular Costs (Puncture Stand Relocation)		\$8,206.64	-\$41.25	\$8,165.39
License Renewal and Appeal Costs		\$163,422.32	\$86,955.78	\$250,378.10
PSC and B&CB Support (irregular)		\$8,228.17		\$8,228.17
Other Irregular Costs (Records Disposition, Site Assessments)		\$15.22	\$3,439.50	\$3,454.72
<b>Total Irregular Costs</b>	<b>\$230,000.00</b>			<b>\$803,696.72</b>



**EXHIBIT B (revised 1/26/06)**

**FISCAL YEAR 2004-2005 IRREGULAR COSTS  
ORGANIZED BY PROJECT**

<b>PROJECT NUMBERS</b>	<b>PROJECT NAME AND EXPLANATIONS</b>
<b>188000.8005</b> <b>188000.8006</b>	<p><b>Decontamination and Corrective Actions</b>  <b>(Labor \$3,473.45 and Non-labor \$11,292.76)</b>  Includes costs related to decontamination efforts and corrective actions that were required as a result of waste received for disposal. Also, included here in Fiscal Year 2004-2005 were costs for repair of a cask personnel barrier that was damaged in an unexpected windstorm at the disposal site. During Fiscal Year 2004-2005, costs incurred in these projects, although irregular and non-recurring in nature, were within the scope of waste disposal operations work.</p>
<b>188004.8001</b>	<p><b>Site Engineering &amp; Drawing Updates</b>  <b>(Labor \$60,260.25 and Non-labor \$23,665.80)</b>  Labor and contractor costs for site engineering support and preparation and reproduction of site drawings. The engineering support and drawings were required for various analyses and reports submitted to DHEC.</p> <p>Included in this project in Fiscal Year 2004-2005 were five primary endeavors: (1) Design evaluation of slit trench and custom vaults in Trench 86, (2) Site drawing updates for 2005 closure plan, (3) vault stability calculations for Trench 86 arrangements, (4) slit trench backfill material evaluation, and (5) custom vault design review.</p>
<b>188007.8001</b>	<p><b>Irregular Component Disposal</b>  <b>(Labor: \$12,551.99 and Non-labor \$107,022.27)</b>  Non-routine operations. Includes costs associated with disposal of items that involve unusual handling requirements including placement in custom-designed vaults for stabilization by grouting. Included are waste receipt and inspection, preparations to offload the shipping container or vehicle, placement of the irregular component in its disposal vault, disposal, survey and transportation vehicle release and closeout. Irregular components disposed of in Fiscal Year 2004-2005 were: Connecticut Yankee Reactor coolant piping and isolation valves and several oversized boxes of components (tie bolt assemblies) from Norfolk Naval Shipyard. Eleven concrete disposal vaults (nine custom vaults and two slit trench vaults) are included in these costs. The amounts billed to customers for disposal of these irregular components were \$564,928.59.</p>

<b>188030.8001</b> <b>188031.8001</b>	<b>Miscellaneous Irregular Costs (Puncture Stand Relocation)</b> <b>(Labor \$8,206.64 and Non-labor -\$41.25)</b> Costs for activities related to preparation for relocation of the waste shipment inspection stand (puncture stand) outside of Trench 86 as the trench is nearing completion. The non-labor costs in this area include a prior year adjustment.
<b>188022.8001</b> <b>188701.8007</b> <b>188701.8008</b> <b>188701.8009</b> <b>188701.8010</b> <b>188701.8011</b> <b>188701.8012</b> <b>188701.8013</b> <b>188701.8014</b> <b>188701.8015</b> <b>188701.8016</b> <b>188701.8017</b> <b>188701.8018</b>	<b>Various Trench Construction and Backfill Operations</b> <b>(Labor \$52,159.78 and Non-labor \$263,044.04)</b> Trench construction activities in Fiscal Year 2004-2005 included design, construction and backfill (including use of free flowing sand (where applicable)) in Trench 86, Trench 94, Trench 95, Trench 96, Trench 97, Slit Trench 22, Slit Trench 23, Slit Trench 24, Slit Trench 25, Slit Trench 26, Slit Trench 27, and design of Slit Trench 28. Included here is the cost of 12 cylindrical vaults used in construction of Trench 97.
<b>952182.8001</b> <b>952183.8001</b>	<b>Other Irregular Costs (Records Disposition and Site Assessments)</b> <b>(Labor \$15.22 and Non-labor \$3,439.50)</b> Included here are costs for review and disposition of records. Also included are special projects related to site performance as directed by DHEC or other competent authority. Generally these projects are related to regulatory or technical site performance.
<b>952188.8001</b>	<b>Licensing Admin (IRREG)</b> <b>(Labor \$61,380.20 and Non-labor \$11,255.27)</b> Non-routine licensing department functions including development and support of the disposal site license renewal application and responding to questions and interrogatories from DHEC.
<b>952188.8002</b>	<b>Appeal DHEC License</b> <b>(Labor \$102,042.12 and Non-labor \$75,700.51)</b> Non-routine activities by licensing department and others related to the appeal process for the DHEC radioactive materials license renewal. Included here are costs for Chem-Nuclear labor, consultants and expert witnesses. Legal expenses are included in Fixed Costs.

<b>952191.8001</b> <b>952192.8002</b>	<b>PSC and B&amp;CB Support (IRREG)</b> <b>(Labor \$8,228.17)</b> These irregular cost project numbers are used to document costs associated with those PSC proceedings involving depositions, interrogatories, discovery requests and other time consuming activities. Also included here are costs for special projects or reports as requested by the SC B&CB staff (e.g., a consolidated spreadsheet of invoice data and radioactive shipment data integrated with collections data).
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**EXHIBIT C (revised 1/26/06)**

**FISCAL YEAR 2005-2006 COSTS**

We propose the following amounts be identified as allowable costs for Fiscal Year 2005-2006:

<b>FIXED COSTS</b>	
Fixed Costs to which 29% operating margin is added	
Labor and Fringe	\$3,000,000
Non-Labor	\$1,308,109
Corporate Allocations (Management Fees / G&A)	\$1,203,257
Depreciation	\$250,000
Insurance	\$830,232
Equipment Leases and Support	\$386,150
Fixed Costs to which 29% operating margin is <b>not</b> added	
Intangible Asset Amortization	\$625,000
Employee Retention Compensation	\$105,423
Legal Support (license appeal)	\$50,000
<b>Total Fixed Costs</b>	<b>\$7,758,171</b>
<b>IRREGULAR COSTS</b>	
Trench Construction	\$128,771
License Appeal	\$5,951
Corrective Action	\$19,277
Site Engineering Drawing	\$22,808
Irregular Components	\$291
Miscellaneous	\$28,365
<b>Total Irregular Costs</b>	<b>\$205,463</b>
<b>VARIABLE COSTS</b>	
<b>Variable Labor and Non-Labor Rates</b>	
Vault Purchase and Inspection (per vault)	\$89.31
ABC Waste Disposal (per shipment)	\$1,225.69
Slit Trench Operations (includes laundry costs) (per slit trench offload)	\$8,666.66
Waste Acceptance (per shipment)	\$293.80
Trench Records (per container)	\$68.32
<b>Variable Material Costs (Vault) based on actual Fiscal Year 2004-2005 rates plus supplier cost increase</b>	
Class A Waste (per cubic foot)	\$37.78
Class B Waste (per cubic foot)	\$38.08
Class C Waste (per cubic foot)	\$38.00
Slit Trench Waste (per cubic foot)	\$124.23

BEFORE  
THE PUBLIC SERVICE COMMISSION  
OF  
SOUTH CAROLINA

Docket No. 2000-366-A  
( Year 2005-2006 Proceeding )

DIRECT TESTIMONY  
OF  
**JAMES W. LATHAM**

FOR  
CHEM-NUCLEAR SYSTEMS, LLC,  
A DIVISION OF DURATEK, INC.

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PUBLIC SERVICE COMMISSION

**Q. PLEASE STATE YOUR NAME AND ADDRESS.**

**A.** My name is James W. Latham. My business address is 740 Osborn Road, Barnwell, South Carolina.

**Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?**

**A.** I am employed by Chem-Nuclear Systems, LLC ("Chem-Nuclear"), a wholly-owned subsidiary of Duratek, Inc. I am Chem-Nuclear's Vice-President for Barnwell Operations.

**Q. PLEASE DESCRIBE YOUR PRINCIPAL RESPONSIBILITIES.**

**A.** As Vice President for Barnwell Operations, I am responsible for the safe and proper disposal of low-level radioactive waste received at the disposal facility in accordance

with Chem-Nuclear's South Carolina Radioactive Material License. I am also responsible for management, supervision and administration of disposal operations personnel, equipment and buildings. I am frequently a key point of contact between Chem-Nuclear and local community leaders and members of the public. I have been in my current position in Barnwell since July 1996.

**Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.**

**A.** I graduated from the United States Naval Academy with a Bachelor of Science degree. I served in the United States Navy for twenty years in various assignments associated with nuclear powered submarines. I have worked for Chem-Nuclear since 1989. From 1989 to 1991, I was a project manager planning and directing field projects for Chem-Nuclear. I was assigned to Chem-Nuclear's new disposal site development office in Harrisburg, Pennsylvania, from 1991 to 1996. During my five years in the Pennsylvania Project Office, I held a number of positions including engineering director, deputy project manager, and acting project manager. I have been at Chem-Nuclear's disposal facility in Barnwell since July 1996, first as General Manager for Disposal Operations and then as Vice-President for Barnwell Operations.

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY BEFORE THE COMMISSION TODAY?**

**A.** The purpose of my testimony is to provide information to the South Carolina Public Service Commission ("Commission") about the disposal site and facility operations as those matters relate to disposal of low-level radioactive waste at the disposal facility located in Barnwell

County, South Carolina. My testimony will also focus on the most significant adjustments and principal differences in categories of costs between costs we actually incurred in Fiscal Year 2004-2005 and the costs identified in Commission Order No. 2005-338(A).

Finally, my testimony will summarize the costs we are requesting the Commission to identify as allowable for Fiscal Year 2005-2006.

**Q. PLEASE DESCRIBE THE DISPOSAL SITE.**

**A.** Chem-Nuclear operates a low-level radioactive waste (LLRW) disposal facility located approximately five miles west of the City of Barnwell in Barnwell County, South Carolina. The closest municipality to the disposal site is the Town of Snelling. Chem-Nuclear has operated the disposal site since 1971 continuously with no interruptions or regulatory shutdowns. How we operate today has evolved over thirty-five years. We are proud of what we have learned and we are proud of our safety record.

The disposal site comprises approximately 235 acres of property owned by the State of South Carolina and is leased by Chem-Nuclear from the South Carolina Budget & Control Board ("Budget & Control Board"). The 235-acre licensed disposal area is divided into different use categories including active trenches, completed trenches, potential trench areas, ancillary facilities, water management and buffer zone areas. Of the 235 acres, approximately 105 acres have been used for disposal since 1971. Approximately ten acres remain for disposal in existing trenches or trenches that may be constructed in the next few years. The remaining 120 acres include buffer zone area, water basins, and space for support operations. Approximately 97 acres of completed trenches have been capped with multi-layer earthen caps consisting of layers of

compacted clay, bentonite, high-density polyethylene, sand, cover soils, topsoils and shallow-rooted grasses.

The disposal site could not be operated successfully without an experienced and talented group of employees. They are critically important to the safe and compliant operation of the disposal site. Many of Chem-Nuclear's employees at the disposal site have been with the company for twenty years or more. Attracting and retaining high quality, well-motivated personnel is an integral part of successful, safe and regulatory compliant disposal of LLRW.

**Q. PLEASE DESCRIBE THE FOCUS OF YOUR TESTIMONY WITH RESPECT TO CHEM-NUCLEAR'S COSTS.**

**A.** My testimony focuses on the most significant adjustments and principal differences in categories of costs between costs we actually incurred in Fiscal Year 2004-2005 and the costs identified in Order No. 2005-338(A).

**Q. PLEASE DESCRIBE THE FIXED COSTS.**

**A.** Actual Fixed Costs incurred in Fiscal Year 2004-2005, which we are requesting the Commission to identify as allowable, were \$536,641 more than the fixed costs identified in Order No. 2005-338(A). The primary reasons the Actual Fixed Costs were more than the amount in the Order are an increase in the amount required for equipment leases and support, an increase in the Management Fees/G&A allocations, and an increased amount of legal support required in Fiscal Year 2004-2005.



**Q. PLEASE DESCRIBE THE VARIABLE MATERIAL (VAULT) COSTS.**

- A.** The amount of actual Variable Costs incurred in FY 2004-2005 for routine disposal vaults was \$70,907 more than the amount calculated using rates identified in Order No. 2005-338(A).

Costs incurred each year for concrete disposal vaults are affected by a number of factors including the size and shape of waste packages received and the number and size of vaults used for routine waste disposal. Each year, variable material cost rates (in dollars per cubic foot) for concrete disposal vaults have been developed for Class A waste, Class B waste, Class C waste, and slit trench waste. The rates developed can then be used as one predictor of the cost of vaults for the following year based on the various volumes of waste received in each waste classification and slit trench waste volumes; however, actual costs for the disposal vaults are known and measurable at the conclusion of the year. Therefore, we are requesting the amount actually spent of \$1,489,909.50 be identified as the allowable cost for concrete disposal vaults used for routine shipments of radioactive waste in Fiscal Year 2004-2005.

**Q. PLEASE DESCRIBE THE VARIABLE LABOR AND NON-LABOR COSTS.**

- A.** In addition to the Variable Costs associated with disposal vaults, Order No. 2005-338(A) identifies variable cost rates associated with five categories of activities: disposal vault purchase, inspection and placement; handling of Class A, Class B and Class C waste shipments; slit trench offload operations; waste acceptance; and disposal records maintenance. The rate for each of these activities is associated with an independent variable (number of vaults, number of shipments buried, number of slit trench offloads,

or number of waste containers buried). The variable labor and non-labor rates identified in Order No. 2005-338(A) predicted variable labor and non-labor costs within about 4% of the actual variable labor and non-labor costs incurred. We request the Commission identify \$771,771 as the allowable Variable Labor and Non-Labor Costs for Fiscal Year 2004-2005. This amount is \$30,665 more than the amount calculated using the rates identified in Order No. 2005-338(A).

**Q. PLEASE DESCRIBE THE IRREGULAR COSTS.**

**A.** Not all Irregular Costs for the next year are known and measurable at the time a Commission order is issued. Irregular Costs are costs incurred for projects that may not occur each year or costs for projects that occur each year for which the costs vary from year to year. Each year, Irregular Cost projects with varying costs include insurance costs, trench construction, site engineering and drawing updates, and other site construction projects. Examples of projects that may not recur each year are irregular component disposal, site assessments and license renewal proceedings and hearings. For Fiscal Year 2004-2005, actual Irregular Costs were \$803,696.72, which we request the Commission identify as allowable. This amount is \$573,696.72 more than the amount identified as Irregular Costs in Order No. 338(A).

**Q. PLEASE DISCUSS THE BASIS FOR THE ACTUAL IRREGULAR COSTS.**

**A.** Costs to dispose of irregular components (Connecticut Yankee reactor coolant piping and isolation valves, and Norfolk Naval Shipyard refueling equipment (tiebolt) assemblies)

were not all known at the time of last year's audit. The total costs incurred to dispose of these irregular components were \$119,574.76.

Actual costs for design, construction, and backfilling various trenches were \$315,203.82. Backfilling includes the use of free flowing sand as directed by DHEC. Trenches included in this amount for FY 2004-2005 were all or parts of: Trench 86, Trench 94, Trench 95, Trench 96, Trench 97, and Slit Trenches 22, 23, 24, 25, 26, 27, and 28. Costs for all of these trenches were not known at the time of last year's audit. The large number of slit trenches reflects a high level of activity in slit trench offloads as well as an effort to fully utilize an area of the site bounded by previously constructed trenches and the license boundary.

Costs incurred for decontamination and corrective actions were not all known at the time of the audit. Actual costs of \$14,766.21 were incurred in this category.

Site engineering and drawing updates include five primary endeavors: Site drawing updates for the 2005 Closure Plan; design evaluation of slit trench and custom vaults used in Trench 86; vault stability calculations for Trench 86 vault arrangements; slit trench backfill material evaluation; and custom vault design review. The actual costs of \$83,926.05 were not all known at the time of the annual audit.

Miscellaneous irregular projects included costs for activities related to puncture stand relocation planning. The costs incurred in FY 2004-2005 for these activities were \$8,165.39, and were not all known at the time of the annual audit.

Costs associated with the disposal site license renewal and the subsequent appeal were on-going at the time of last year's proceedings and were not all known at the time of

the annual audit. The actual costs incurred for these irregular projects in FY 2004-2005 were \$250,378.10.

Costs to prepare several reports requested by the Budget & Control Board staff were tracked as an irregular project. One example of the reports requested was a consolidated spreadsheet of invoice data and radioactive shipment data integrated with collections data. These costs were not all known at the time of the annual audit. Actual costs incurred in FY 2004-2005 were \$8,228.17.

Other Irregular Costs include costs for review and disposition of records and special projects related to site performance assessments as directed by DHEC. Costs for these other irregular costs were not known at the time of the annual audit. Actual costs incurred for these activities were \$3,454.72.

**Q. PLEASE DESCRIBE THE COSTS THAT CHEM-NUCLEAR PROPOSES TO BE IDENTIFIED AS ALLOWABLE FOR FISCAL YEAR 2005-2006.**

- A. Costs proposed for Fiscal Year 2005-2006 are provided in Exhibit C (revised 01/26/06) of REV-1. The fixed labor costs proposed for Fiscal Year 2005-2006 are based on actual fixed labor costs incurred in Fiscal Year 2004-2005 with a normal labor increase of 3.5% applied. Non-labor fixed costs for Fiscal Year 2005-2006 are based on actual non-labor fixed costs incurred in Fiscal Year 2004-2005 increased by 2%. Corporate Allocations (G&A) were increased by 3.5% from actual costs incurred in FY 2004-2005 to FY 2005-2006 because many of these costs are labor-related at the corporate level. Insurance costs proposed for FY 2005-2006 are based on costs for the preceding year increased by 4% and equipment rental/lease costs were increased by 3.5%. Fixed Costs to which the

statutory 29% margin does not apply include intangible asset amortization, employee retention compensation program costs and legal expenses. Intangible asset amortization costs do not increase from one year to the next. The employee retention compensation program costs were increased by 3.5% to reflect normal labor increases, and legal expenses were estimated to be significantly reduced from the costs incurred in FY 2004-2005. Total Fixed Costs proposed for Fiscal Year 2005-2006 are \$7,758,171 which is just slightly less than the Fixed Costs incurred in Fiscal Year 2004-2005.

As discussed earlier, not all Irregular Costs will be known and measurable at the time of this hearing. A total of \$205,463 in various irregular project costs was known at the time of the ORS audit and is summarized in Exhibit C (revised 01/26/06) of Exhibit REV-1.

Actual variable labor and non-labor costs incurred in Fiscal Year 2004-2005 in Variable Cost projects increased by 3.5% and form the basis for new Variable Cost Rates proposed for Fiscal Year 2005-2006.

The actual Variable Cost Rates for concrete disposal vaults used in Fiscal Year 2004-2005 were calculated using the same method as previous years. These Fiscal Year 2004-2005 actual rates were increased by 14% based on increased prices required by the vault manufacturer. The increased prices resulted from a number of economic factors including increased steel prices and increased concrete prices.

**Q. DOES THAT COMPLETE YOUR DIRECT TESTIMONY?**

**A.** Yes.